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**ULTRA-WIDEBAND PULSE MODULATION SYSTEM AND METHOD**

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This application is a divisional of co-pending U.S. non-provisional application Serial  
No. 10/294,021, filed November 12, 2002, <sup>which is still pending,</sup> entitled "ULTRA-WIDEBAND PULSE  
MODULATION SYSTEM AND METHOD."

**Field Of The Invention**

The present invention generally relates to ultra-wideband communications. More particularly, the invention concerns a method of modulating ultra-wideband pulses for wire and wireless communications.

**Background Of The Invention**

The Information Age is upon us. Access to vast quantities of information through a variety of different communication systems are changing the way people work, entertain themselves, and communicate with each other. For example, as a result of increased telecommunications competition mapped out by Congress in the 1996 Telecommunications Reform Act, traditional cable television program providers have evolved into full-service providers of advanced video, voice and data services for homes and businesses. A number of competing cable companies now offer cable systems that deliver all of the just-described services via a single broadband network.

These services have increased the need for bandwidth, which is the amount of data transmitted or received per unit time. More bandwidth has become increasingly important, as the size of data transmissions has continually grown. Applications such as in-home movies-on-